

# NOROVIRUS OUTBREAK PREVENTION TOOLKIT

A guide to  
preventing  
Norovirus  
outbreaks in  
Skilled Nursing  
Facilities



City of Long Beach  
Department of Health and Human  
Services

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# Preventing Norovirus Outbreaks in Skilled Nursing Facilities

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Dear Administrators and Nursing Staff:

Winter tends to bring increased numbers of norovirus outbreaks, especially in skilled nursing facilities. The Long Beach Department of Health and Human Services (LBDHHS) encourages all skilled-nursing and assisted-living facility administrators and nursing staff to review their infection control policies and provide in-services to staff on the guidelines for preventing and controlling viral gastroenteritis in a healthcare setting.

Norovirus causes nausea, vomiting and diarrhea usually lasting 48-72 hours. It is very contagious and can spread rapidly within institutional settings. The spread and duration of these outbreaks can be minimized and contained by your facility staff by taking quick, decisive action. To assist you, the LBDHHS is providing you with the *Long Beach Norovirus Outbreak Prevention and Control Toolkit*. This toolkit includes the training and outbreak management materials you and your staff need to prevent and control norovirus outbreaks in your facility.

Additionally, you can find the toolkit online at

[http://www.longbeach.gov/health/info\\_stats/communicable\\_disease\\_report.asp](http://www.longbeach.gov/health/info_stats/communicable_disease_report.asp).

**Any outbreak (2 or more residents or staff) of acute gastroenteritis must be immediately reported to the LBDHHS Epidemiology Program at (562) 570-4302 or by fax at (562) 570-4374.** For after hours, weekends, and holidays, call (562) 435-6711 and ask for the Communicable Disease Control Officer. If you have questions or need additional information, contact the Epidemiology Program at (562) 570-4302.

Please remind all staff and residents to wash their hands with soap and water or use an alcohol-based hand sanitizer. Thank you for your vigilance and assistance with the early detection of this significant public health issue.

Sincerely,

Mitchell Kushner, MD, MPH, Health Officer  
Long Beach Department of Health and Human Services

## REPORTABLE DISEASES AND CONDITIONS

Title 17, California Code of Regulations (CCR) §2500

It shall be the duty of every health care provider, knowing of or in attendance on a case or suspected case of any of the diseases or condition listed below, to report to the local health officer for the jurisdiction where the patient resides. Where no health care provider is in attendance, any individual having knowledge of a person who is suspected to be suffering from one of the diseases or conditions listed below may make such a report to the local health officer for the jurisdiction where the patient resides.

### URGENCY REPORTING REQUIREMENTS

☎=Report immediately by telephone    ☒=Report within 1 working day    Report within 7 calendar days from time of identification

## REPORTABLE DISEASES

<p>Acquired Immune Deficiency Syndrome (AIDS)</p> <p>☒ <b>Amebiasis</b></p> <p>Anaplasmosis/Ehrlichiosis</p> <p>☎ <b>Anthrax</b></p> <p>☒ <b>Babesiosis</b></p> <p>☎ <b>Botulism (Infant, Foodborne, Wound)</b></p> <p>Brucellosis, animal (except infections due to <i>Brucella canis</i>)</p> <p>☎ <b>Brucellosis, human</b></p> <p>☒ <b>Campylobacteriosis</b></p> <p>Chancroid</p> <p>☒ <b>Chickenpox (only hospitalizations and deaths)</b></p> <p><i>Chlamydia trachomatis</i> infections, including Lymphogranuloma Venereum (LGV)</p> <p>☎ <b>Cholera</b></p> <p>☎ <b>Ciguatera Fish Poisoning</b></p> <p>Coccidioidomycosis</p> <p>Creutzfeldt-Jakob Disease (CJD) and other Transmissible Spongiform Encephalopathies (TSE)</p> <p>☒ <b>Cryptosporidiosis</b></p> <p>Cyclosporiasis</p> <p>Cysticercosis or Taeniasis</p> <p>☎ <b>Dengue</b></p> <p>☎ <b>Diphtheria</b></p> <p>☎ <b>Domoic Acid Poisoning (Amnesic Shellfish Poisoning)</b></p> <p>☒ <b>Encephalitis, Specify Etiology: Viral, Bacterial, Fungal, Parasitic</b></p> <p>☎ <b><i>Escherichia coli</i>: shiga toxin producing (STEC) including <i>E. coli</i> O157</b></p> <p>☒ <b>Foodborne Disease</b></p> <p>Giardiasis</p> <p>Gonococcal Infections</p> <p>☒ <b><i>Haemophilus influenzae</i> invasive disease (report an incident less than 15 years of age)</b></p> <p>☎ <b>Hantavirus Infections</b></p> <p>☎ <b>Hemolytic Uremic Syndrome</b></p> <p>⑦ <b>Hepatitis, Viral</b></p> <p>☒ <b>Hepatitis A</b></p> <p>Hepatitis B (specify acute case or chronic)</p> <p>Hepatitis C (specify acute case or chronic)</p> <p>Hepatitis D (Delta) (specify acute case or chronic)</p> <p>Hepatitis E, acute infection</p> <p>Influenza, deaths in lab-confirmed cases age 0-64 years</p> <p>☎ <b>Influenza, novel strains (human)</b></p> <p>Legionellosis</p>	<p>Leprosy (Hansen Disease)</p> <p>Leptospirosis</p> <p>☒ <b>Listeriosis</b></p> <p>Lyme Disease</p> <p>☒ <b>Malaria</b></p> <p>☎ <b>Measles (Rubeola)</b></p> <p>☒ <b>Meningitis, Specify Etiology: Viral, Bacterial, Fungal, Parasitic</b></p> <p>☎ <b>Meningococcal Infections</b></p> <p>Mumps</p> <p>☎ <b>Paralytic Shellfish Poisoning</b></p> <p>Pelvic Inflammatory Disease (PID)</p> <p>☒ <b>Pertussis (Whooping Cough)</b></p> <p>☎ <b>Plague, Human or Animal</b></p> <p>☒ <b>Poliovirus Infection</b></p> <p>☒ <b>Psittacosis</b></p> <p>☒ <b>Q Fever</b></p> <p>☎ <b>Rabies, Human or Animal</b></p> <p>☒ <b>Relapsing Fever</b></p> <p>Rickettsial Diseases (non-Rocky Mountain Spotted Fever), including Typhus and Typhus-like illnesses</p> <p>Rocky Mountain Spotted Fever</p> <p>Rubella (German Measles)</p> <p>Rubella Syndrome, Congenital</p> <p>☒ <b>Salmonellosis (Other than Typhoid Fever)</b></p> <p>☎ <b>Scombroid Fish Poisoning</b></p> <p>☎ <b>Severe Acute Respiratory Syndrome (SARS)</b></p> <p>☎ <b>Shiga toxin (detected in feces)</b></p> <p>☒ <b>Shigellosis</b></p> <p>☎ <b>Smallpox (Variola)</b></p> <p>☒ <b><i>Staphylococcus aureus</i> infection (only a case resulting in death or admission to an intensive care unit of a person who has not been hospitalized or had surgery, dialysis, or residency in a long-term care facility in the past year, and did not have an indwelling catheter or percutaneous medical device at the time of culture)</b></p> <p>☒ <b>Streptococcal Infections (Outbreaks of any Type and Individual Cases in Food Handlers and Dairy Workers Only)</b></p> <p>☒ <b>Syphilis</b></p> <p>Tetanus</p> <p>Toxic Shock Syndrome</p> <p>☒ <b>Trichinosis</b></p>	<p>☒ <b>Tuberculosis†</b></p> <p>Tularemia, animal</p> <p>☎ <b>Tularemia</b></p> <p>☒ <b>Typhoid Fever, Cases and Carriers</b></p> <p>☒ <b><i>Vibrio</i> Infections</b></p> <p>☎ <b>Viral Hemorrhagic Fevers (e.g., Crimean-Congo, Ebola, Lassa, and Marburg viruses)</b></p> <p>☒ <b>West Nile Virus (WNV) Infection</b></p> <p>☎ <b>Yellow Fever</b></p> <p>☒ <b>Yersiniosis</b></p> <p>☎ <b>OCCURRENCE of ANY UNUSUAL DISEASE</b></p> <p>☎ <b>OUTBREAKS of ANY DISEASE</b> (Including diseases not listed in §2500). Specify if institutional and/or open community.</p> <p><b>HIV REPORTING BY HEALTH CARE PROVIDERS §2641.5-2643.20</b></p> <p>Human Immunodeficiency Virus (HIV) infection is reportable by traceable mail or person-to-person transfer within seven calendar days by completion of the HIV/AIDS Case Report form (CDPH 8641A) available from the local health department. For completing HIV-specific reporting requirements, see Title 17, CCR, §2641.5-2643.20 and <a href="http://www.cdph.ca.gov/programs/aids/Pages/OAHIVReporting.aspx">http://www.cdph.ca.gov/programs/aids/Pages/OAHIVReporting.aspx</a></p> <p><b>REPORTABLE NONCOMMUNICABLE DISEASES AND CONDITIONS §2800–2812 and §2593(b)</b></p> <p>Disorders Characterized by Lapses of Consciousness (§2800-2812)</p> <p>Pesticide-related illness or injury (known or suspected cases)**</p> <p>Cancer, including benign and borderline brain tumors (except (1) basal and squamous skin cancer unless occurring on genitalia, and (2) carcinoma in-situ and CIN III of the cervix) (§2593)***</p> <p><b>LOCALLY REPORTABLE DISEASES (If Applicable):</b></p> <p>☒ <b>Positive Skin Tests in Children Less Than 3 years of Age Without History of BCG Vaccination;</b></p> <p>☒ <b>Norovirus in Food Employee</b></p>
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\* Failure to report is a misdemeanor (Health and Safety Code §120295) and is a citable offense under the Medical Board of California Citation and Fine Program (Title 16, CCR, §1364.10 and 1364.11).

\*\* Failure to report is a citable offense and subject to civil penalty (\$250) (Health and Safety Code §105200).

\*\*\* The Confidential Physician Cancer Reporting Form may also be used. See Physician Reporting Requirements for Cancer Reporting in CA at:

**To report a case or outbreak of any disease contact the Epidemiology Program:**

**Tel: (562) 570-4302 Fax: (562) 570-4374**

## Outbreak Management Check List

<b>1. Communication</b>	<b>N/A</b>	<b>Date</b>	<b>Completed by</b>	<b>Signature</b>
Facility Administration Notified				
Facility Infection Control Notified				
Immediately reportable to LB Epidemiology Department (562) 570-4302 or Fax: (562) 570-4374				
Report to California Department of Public Health Licensing and Certification Local Office				
Patients, relatives, & visitors notified				
Date of last admission				
Health facility closed to new admissions				
Health facility reopened to new admissions				
<b>2. Investigation and Monitoring</b>	<b>N/A</b>	<b>Date</b>	<b>Completed by</b>	<b>Signature</b>
Symptomatic healthcare workers removed from work and/or referred to Employee health and/or evaluated by a clinician				
Patients evaluated for NV and placed in contact isolation				
Employee line list completed				
Patient line list completed				
Map Cases on facility floor plan				
Report all new cases to health department daily				
<b>3. Specimen Collection</b>	<b>N/A</b>	<b>Date</b>	<b>Completed by</b>	<b>Signature</b>
Stool specimens collected within 48-72 hours of onset and kept refrigerated for lab confirmation				
Vomitus specimen collected to supplement the diagnosis, if needed				
<b>4. Infection Control</b>				
Enhanced environmental cleaning conducted throughout the outbreak period				
Contact isolation- symptomatic residences confined to their rooms. Movement of all residence minimized.				
Limit staff movement between units. If staff have been exposed to ill patients, maintain work assignments to same unit				
Environmental cleaning- EPA approved disinfectant for NV or bleach/water preparation (1 part household bleach to 10 parts water)				
<b>5. Hand Hygiene</b>	<b>N/A</b>	<b>Date</b>	<b>Completed by</b>	<b>Signature</b>
Antiseptic soap used as preferred method (20 seconds or more)				
<b>6. Education</b>	<b>N/A</b>	<b>Date</b>	<b>Completed by</b>	<b>Signature</b>
Training provided to all staff on signs and symptoms of norovirus				
Educational materials given to staff				
Control measures discussed				

## Norovirus/ Viral Gastroenteritis Line Listing – Symptomatic RESIDENTS

Name	D.O.B.	Age	Sex (M/F)	Patients only unit/room	Symptomatic onset date	Vomiting (Y/N/Unk)	Diarrhea (Y/N/Unk)	Bloody Stools (Y/N/Unk)	Abdominal Cramps (Y/N/Unk)	Fever (T max Y/N)	First Symptom free date	Hospitalized (Y/N)	Specimen collected (Y/N)	Date of specimen collected	Lab Results	Immuno compromised or conditions?	Date of Death?

Long Beach Department of Health and Human Services  
Epidemiology Department  
Phone: (562) 570-4302 Fax: (562) 570-4374

## Norovirus/Gastroenteritis Line Listing- Symptomatic STAFF

Name	D.O.B.	Age	Sex (M/F)	Department Location	Work at multiple sites	Last Date Worked	Date Returned to work	Symptomatic onset date	Vomiting	Diarrhea	Bloody Stools	Abdom. cramps	Fever (T max)	First Symptom free date	Hospitalized	Stool /vomit sample collected	Date of specimen collected	Lab Results	Immuno compromised or conditions? Date of Death?

Long Beach Department of Health and Human Services, Epidemiology Department  
 Phone: (562) 570-4302 Fax: (562) 570-4374

# Notification Alert

SNF Administrative staff should use template to notify staff, patient, and facility visitors of the Norovirus outbreak

**[Insert Agency Letterhead]**

**DATE**

Dear Patients, Families, and Visitors:

Our facility is currently working with the City of Long Beach Department of Health and Human Services to investigate a number of patients and staff who became ill with Norovirus, which causes vomiting and diarrhea. These viruses are found in the stool or vomit of infected people. Outbreaks of Norovirus within the City of Long Beach hospitals, skilled nursing facilities and other community settings are frequently reported every year. We are notifying you in the interest of public awareness and safety.

People can become infected with the virus in several ways, including:

- Eating food or drinking liquids that are contaminated with Norovirus
- Touching surfaces or objects contaminated with Norovirus and then placing their hand in their mouth
- Having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating with utensils from someone who is ill)

The symptoms of Norovirus illness usually begin about 24 to 48 hours after exposure to the virus. If you are feeling sick tell the nurse or your doctor. The best way to prevent Norovirus is to wash your hands.

**Be sure to wash your hands when entering and before leaving this facility!**

**INSERT FACILITY NAME** has already taken the appropriate steps to get this outbreak under control. Your physician and patient care staff is aware of the situation. Public Health is working closely with the staff of **INSERT FACILITY NAME** to investigate the cause of these infections to prevent new infections.

**INSERT FACILITY NAME** has strengthened all infection control measures to control this problem. Staff education and strict hand washing for doctors and staff has been implemented. The strengthened infection control measures that **INSERT FACILITY NAME** already has in place can reduce the number of new infections.

For any questions regarding this notification alert, please contact: **INSERT FACILITY CONTACT INFORMATION**

Sincerely,

**NAME, TITLE**



# Environmental Control Measures

## Environmental Cleaning

When diarrhea and vomiting occur at your facility, make sure to:

- Immediately clean up vomit and feces with absorbent material and secure in a plastic bag for disposal. Wear gloves, gown, and surgical mask during cleaning. Avoid sponges or reusable clothes.
- Disinfect surrounding hard surfaces using an Environmental Protection Agency (EPA) approved disinfectant for norovirus or a freshly prepared sodium hypochlorite solution (1 part household bleach to 10 parts water solution) [http://www.epa.gov/oppad001/list\\_g\\_norovirus.pdf](http://www.epa.gov/oppad001/list_g_norovirus.pdf)
- Immediately wash soiled clothing, linens, and privacy curtains with hot water and detergent, using the maximum cycle length with water temperatures greater than 170° F; machine dry. Separate clean and soiled fabrics.
- Clean carpets and soft furnishings with hot water and detergent. Dry vacuuming is not recommended since the virus may become airborne.
- Double the frequency of routine unit, bathroom, and toilet cleaning. Give special attention to frequently touched objects such as doorknobs, faucets, telephone, bedside tables, toilet, bed, and bath rails.
- Throw away foods that may have been infected by a sick kitchen employee.

## Preparation of Chlorine Solutions

### Preparation of Bleach Solutions (5.25% – 6.15%) for Disinfection

Approximate Chlorine Concentration (ppm)	Bleach to Water Ratio	Approximate Dilution	Application
1000 (0.1%)	1/3 cup to 1 gallon cool water	1:50	Use for norovirus outbreaks in patient care facilities; Use for non-porous surfaces (tiles, sinks, counter-tops)
5000 (0.05%)	1.5 cups to 1 gallon cool water	1:10	Use for norovirus or <i>Clostridium difficile</i> outbreaks in patient care facilities; Use for body fluid and blood spills and for porous surfaces (wooden surfaces or furniture)

**Note:** Prepare only in well-ventilated areas. Open bottles of concentrated chlorine bleach will lose effectiveness so prepare a dilution of fresh bleach every day for use and discard unused portions.

“Ultra” concentrations of bleach contain 6-7.35% hypochlorite and are not recommended to avoid producing higher than intended concentrations of chlorine.

## Patient Care Preventive Measures

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To prevent the spread of norovirus at your facility, make sure to:

- Educate staff, residents and visitors about methods of transmission.
- Identify differences in symptoms patterns outside of normal (e.g. frequency and intensity of vomiting and diarrhea)
- Wear gloves, gown and surgical mask when caring for ill patients.
- Remove protective equipment and wash hands with soap and water for at least 20 seconds, especially before and after patient care.
- Limit staff and residents from moving between affected and unaffected units.
- Keep symptomatic residents in their rooms.
- Require all symptomatic staff (including kitchen staff), visitors and volunteers to stay home for a minimum of 48 hours after recovery.
- Maintain the same staff-to-resident assignments.
- Cancel group activities and limit new admissions until the facility is symptom-free for at least 48 hours.
- Discontinue self-service in the cafeteria to minimize food handling by patients.
- Consider use of antiemetics for patients with vomiting.
- Be aware of the mental and emotional impact the outbreak and its management can have on patients.



# Norovirus: Frequently Asked Questions (FAQ)

## What is Norovirus infection?

Norovirus causes a gastrointestinal illness. It often occurs in outbreak form and is sometimes referred to as “stomach flu” though the terms “flu” or influenza should really be restricted to a respiratory infection.

## What are Norovirus infections?

The original Norovirus, previously named Norwalk virus, was first identified in 1972 after an outbreak of gastrointestinal illness in Norwalk, Ohio. Later, other viruses with similar features to Norwalk viruses, and therefore called Norwalk-like viruses or “SRSVs” (small round structured viruses) were identified, cause similar disease, and were classified together as members of the calicivirus family.

## Where is Norovirus found?

Norovirus is found worldwide. The virus is passed in the stool and vomit of infected persons.

## How do people get Norovirus infection?

People can contract Norovirus directly from an ill individual who does not wash their hands adequately, or indirectly from food or water contaminated by the stool or vomit of an infected person, or from airborne particles produced by those vomiting. Outbreaks in the United States are commonly linked to person-to-person contact, especially in day care centers and nursing homes/custodial institutions, and food handled by infected food handlers.

## Who is at risk for Norovirus infection?

Anyone can get Norovirus infection, and can get it many times since immunity isn’t long-lasting.

## How can I avoid getting Norovirus?

Wash hands with soap and warm water after using the bathroom and before preparing or eating food. People with symptoms of Norovirus-like illness should not prepare food or provide patient care. Skilled Nursing Facilities must assure high levels of personal hygiene to avoid person-to-person spread. Caretakers must wash hands frequently, especially before and after patient care.

## What are the signs and symptoms of Norovirus infection?

- Nausea
- Vomiting
- Diarrhea
- Abdominal cramps
- Low grade fever or no fever at all

## What treatment is available for Norovirus?

No specific treatment for norovirus is available. Persons who become severely dehydrated might need fluid and electrolyte therapy.

***Note: Hand sanitizers alone do not prevent Norovirus infection from spreading. The best prevention method is to regularly wash your hands with soap and water.***